Date: Fri, 31 Dec 93 04:30:09 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #158
To: Ham-Ant

Ham-Ant Digest Fri, 31 Dec 93 Volume 93 : Issue 158

Today's Topics:

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

Date: Thu, 30 Dec 1993 21:07:47 GMT
From: usc!math.ohio-state.edu!news.acns.nwu.edu!raven.alaska.edu!acad2.alaska.edu!
auchd@network.ucsd.edu
Subject: 6BTV Counterpoise
To: ham-ant@ucsd.edu

I recently purchased a Hustler 6BTV. I want to install an efficient
counterpoise for the antenna. Unforunately, in the middle of winter, it's hard
to drive a pipe in the ground (Ground freezes in late September, early
October). Any ideas on what would be a good combination of lengths for this
80-10 meter antenna?

Date: Fri, 31 Dec 1993 04:28:29 GMT
From: library.ucla.edu!europa.eng.gtefsd.com!emory!kd4nc!ke4zv!
gary@network.ucsd.edu
Subject: 6BTV Counterpoise
To: ham-ant@ucsd.edu

In article <1993Dec30.170747.1@acad2.alaska.edu> auchd@acad2.alaska.edu writes:
>I recently purchased a Hustler 6BTV. I want to install an efficient
>counterpoise for the antenna. Unforunately, in the middle of winter, it's hard
>to drive a pipe in the ground (Ground freezes in late September, early
>October). Any ideas on what would be a good combination of lengths for this
>80-10 meter antenna?

220 66 foot radials laid out on the snow will work wonderfully well.
That's a broadcast quality ground screen. You should be able to get
by with 16 however for amateur quality. Actual contact with the ground
isn't necessary, and the length needs to be a quarterwave at the lowest
frequency you're going to operate. Just arrange them like the spokes of
a wheel with the antenna in the center.

Gary
--

Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | |

Date: Thu, 30 Dec 1993 16:48:17 GMT
From: library.ucla.edu!europa.eng.gtefsd.com!emory!kd4nc!ke4zv!
gary@network.ucsd.edu
Subject: Artificial Ground Question
To: ham-ant@ucsd.edu

In article <pineappCIttEL.GCt@netcom.com> pineapp@netcom.com (Daniel Curry)
writes:
>   I would like to know what is the advantage and disavantage of using
>a Artificial Ground? I live an a three stories apartment complex.
>I have a G5RV antenna up on the roof. I have no good electrical
>ground access.
> I am using an antenna tuner for my HF radio. I have the Artificial
>Ground hook up. The Artificial Ground has a random length wire that
>is drape on the floor.

The "artificial ground" is just a tuned counterpoise. It's only
useful if you have an unbalanced antenna that needs to work against
ground and you can't establish a low impedance connection to real
Earth. Note that some ostensibly balanced antennas can have substantial
unbalance due to several factors, including feed methods. In the case
of the G5RV that's usually, unfortunately, true. Rather than fighting
the G5RV, a better approach would be to bring the balanced feeder all
the way to the tuner and treat it as a regular flattop antenna. You'll
get better performance by removing the coax, because the high SWR on

the coax will increase losses, and your RF in the shack problems
should disappear.

Transmitting facilities don't really need a "ground" connection to
operate, as witness radio operations from aircraft and vehicles.
However, certain antenna types do need either a counterpoise, or
a good ground *mirror* connection to be effective. So if you don't
have a good Earth mirror, then either use a counterpoise, or better,
use an antenna type that is balanced.

Gary
--
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | |

Date: 30 Dec 1993 13:59:31 GMT
From: swrinde!sgiblab!sgigate.sgi.com!olivea!inews.intel.com!ilx018.intel.com!
ilx049!dbraun@network.ucsd.edu
Subject: Commercial Antenna Tuners
To: ham-ant@ucsd.edu

In article <CICwu3.7G4@srgenprp.sr.hp.com>, alanb@sr.hp.com (Alan Bloom) writes:

|> It's basically a tuned circuit with a link-coupled output, as I recall.
|> Its big advantage over most modern tuners is that it has a true balanced
|> output, without the need for an external balun. If you are feeding
|> twinlead or open-wire feedline, the Matchbox is the hot ticket. It can
|> also work with coax output by shorting one side of the link to ground.
|>

I have seen vague references to the link-coupled concept,
but no actual circuits or products. Can anyone describe it better?
I assume that you basically have a transformer with variable
coupling, so that you can tune a wide range of impedances.

Doug Braun Intel Israel, Ltd. M/S: IDC1-41
Tel: 011-972-4-655069 dbraun@inside.intel.com

End of Ham-Ant Digest V93 #158
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